

FIG. 1

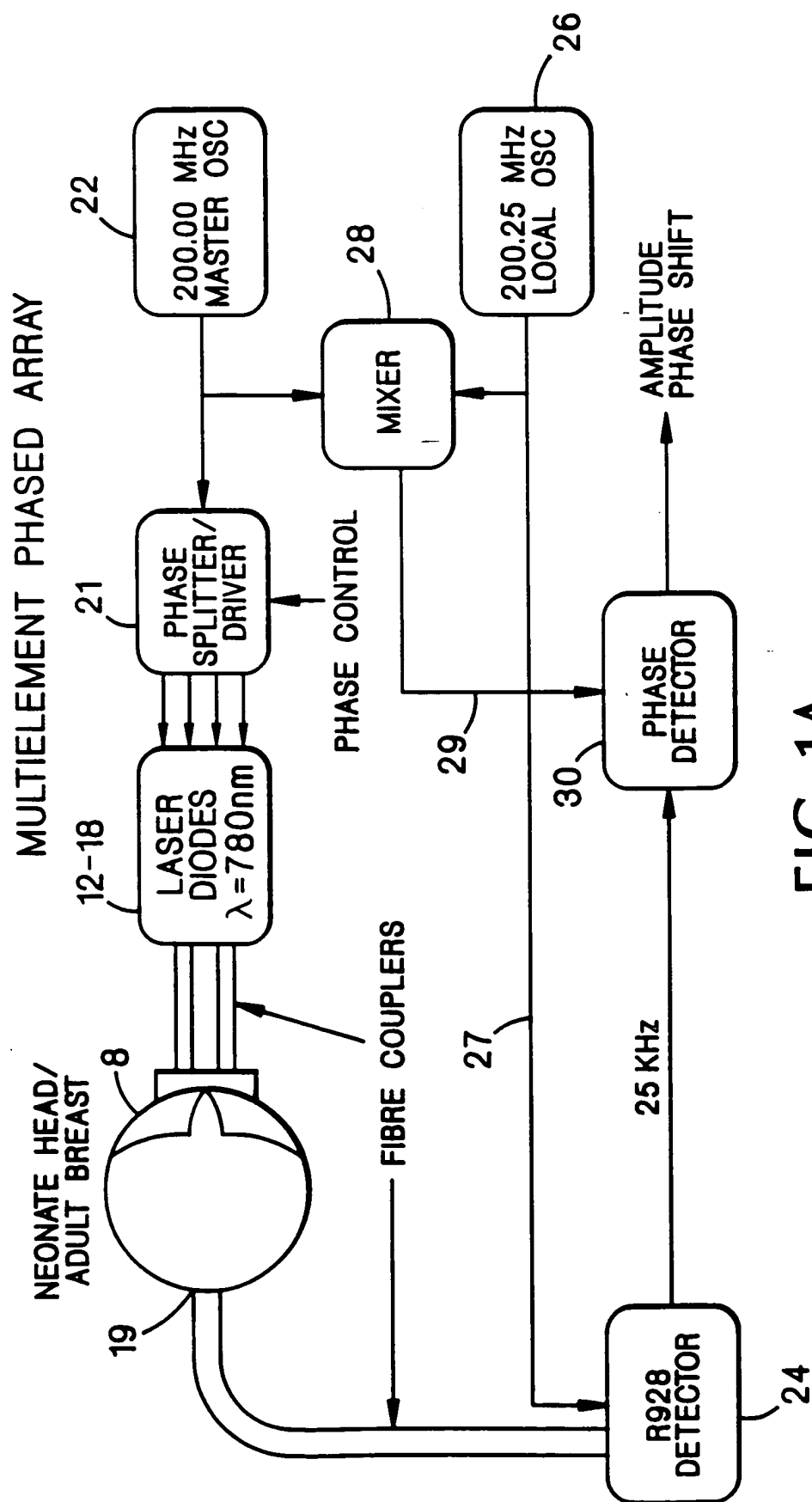
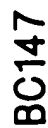
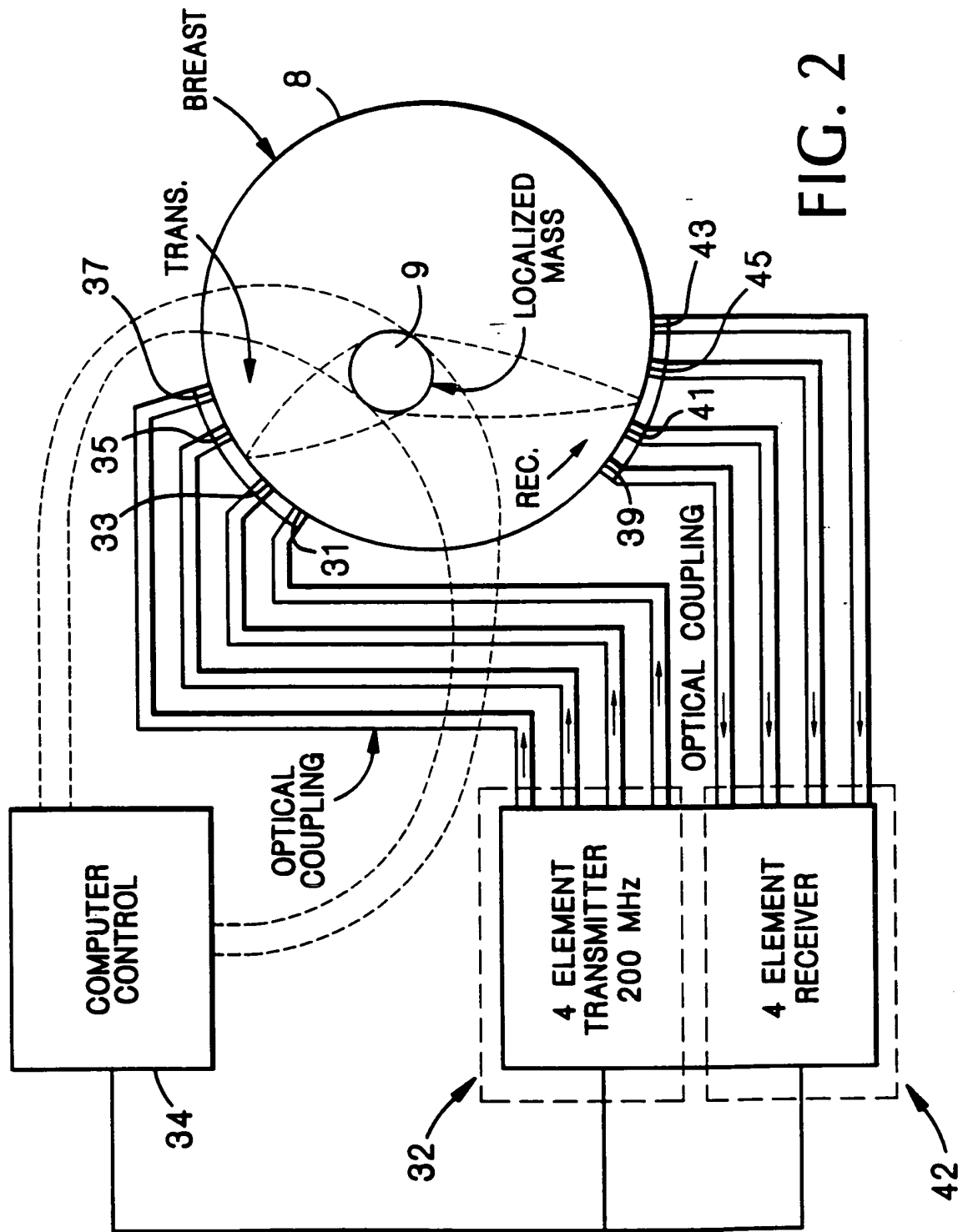
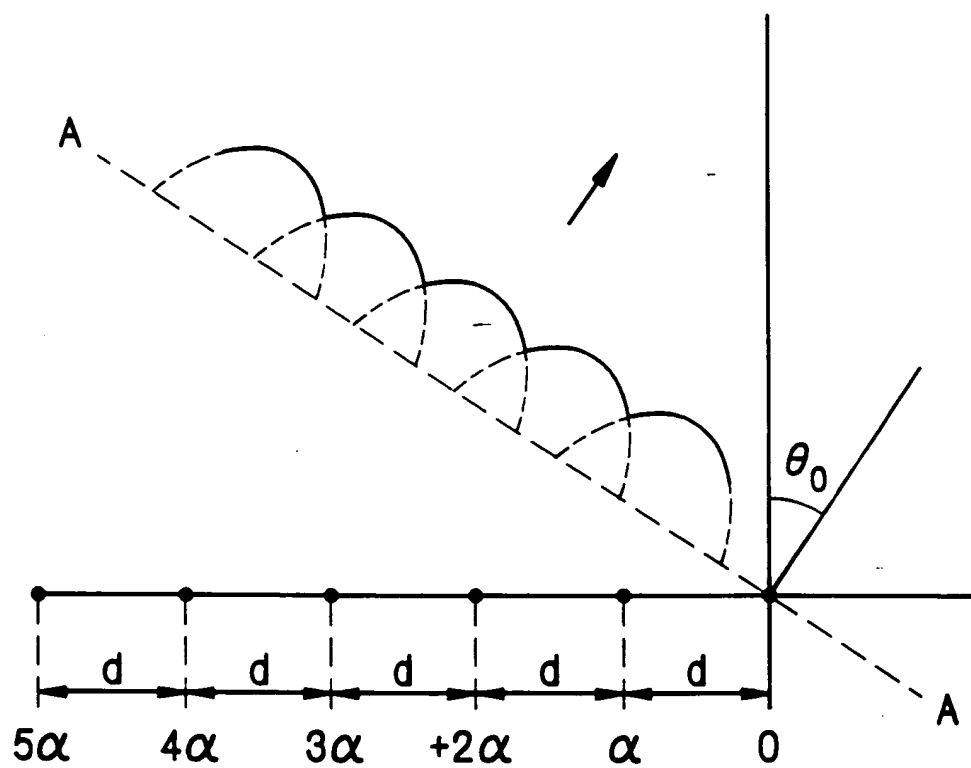


FIG. 1A



A_1 ----- A_4 θ_1 ----- A_4 ADJUSTED TO SCAN OBJECT





$$I_n e^{j\omega(t-t_n)}$$

$$\alpha = \frac{2\pi}{\lambda} d \sin \theta_0$$

$$t_n = n \frac{d}{c} \sin \theta_0 \quad n = 0, 1, 2, \dots$$

FIG. 2A

ANTIPHASE MULTIELEMENT TRANSMITTER-RECEIVER ARRAYS

ARRANGEMENT OF PHASES FOR SCAN

TRANSMITTER ARRAY	1	-		+	+	+	+	+	+
	2	-	-		+	+	+	+	+
	3	-	-	-		+	+	+	+
	4	-	-	-	-		+	+	+
	5	-	-	-	-	-		+	+
RECEIVER ARRAY POSITION		1	2	3	4	5			

t=0

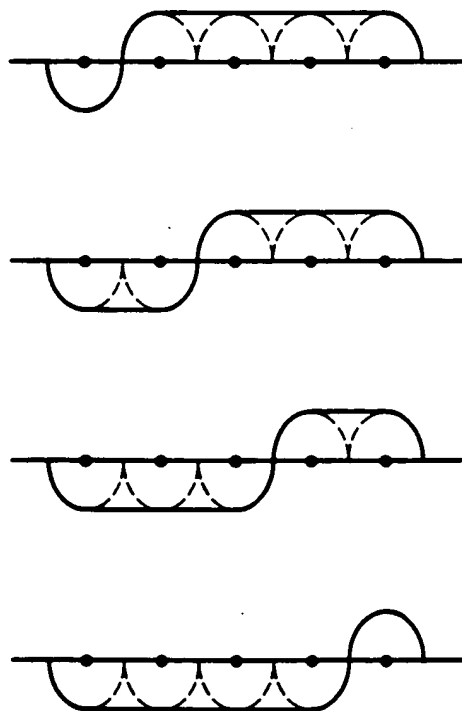


FIG. 2B

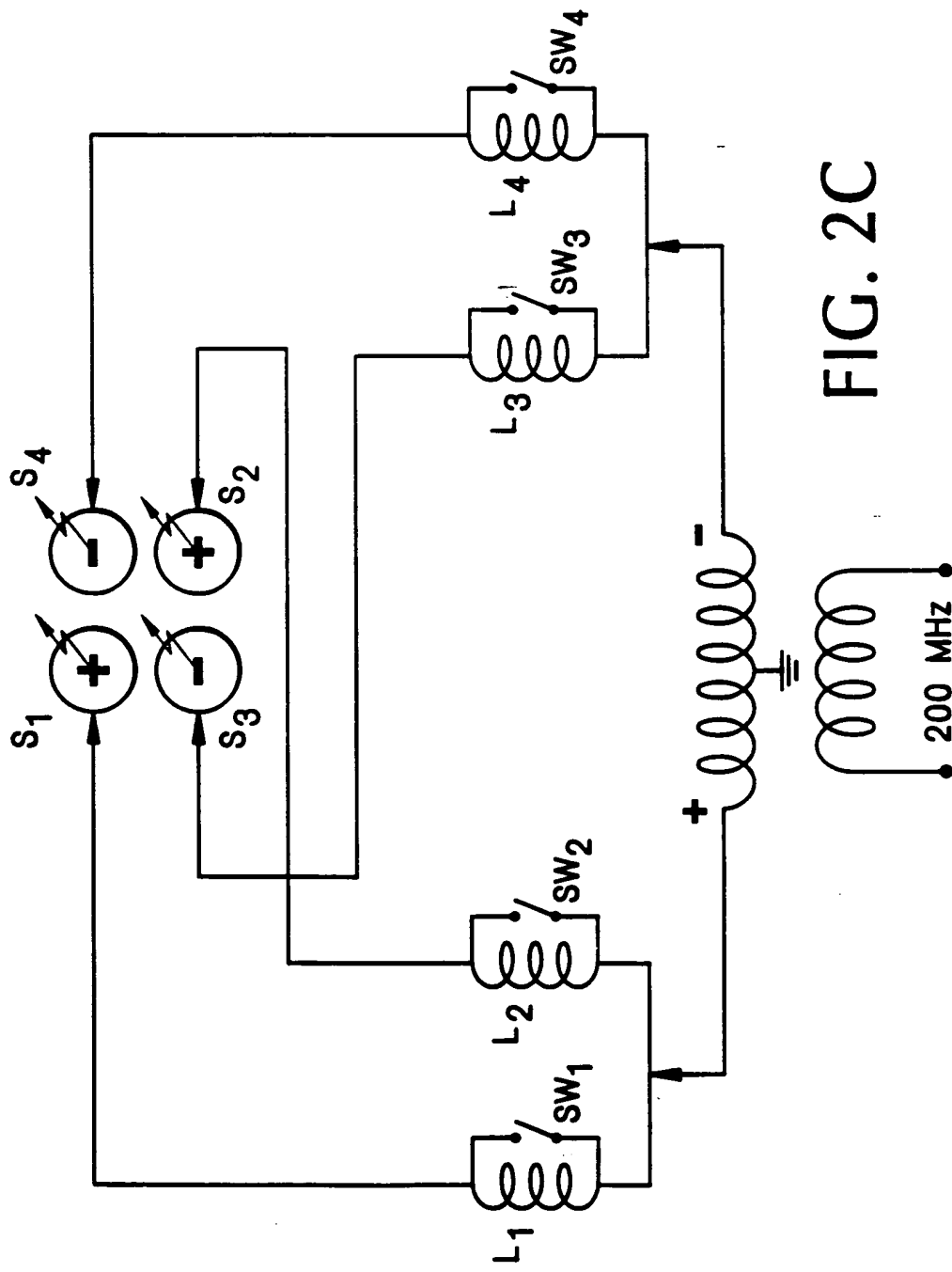


FIG. 2C

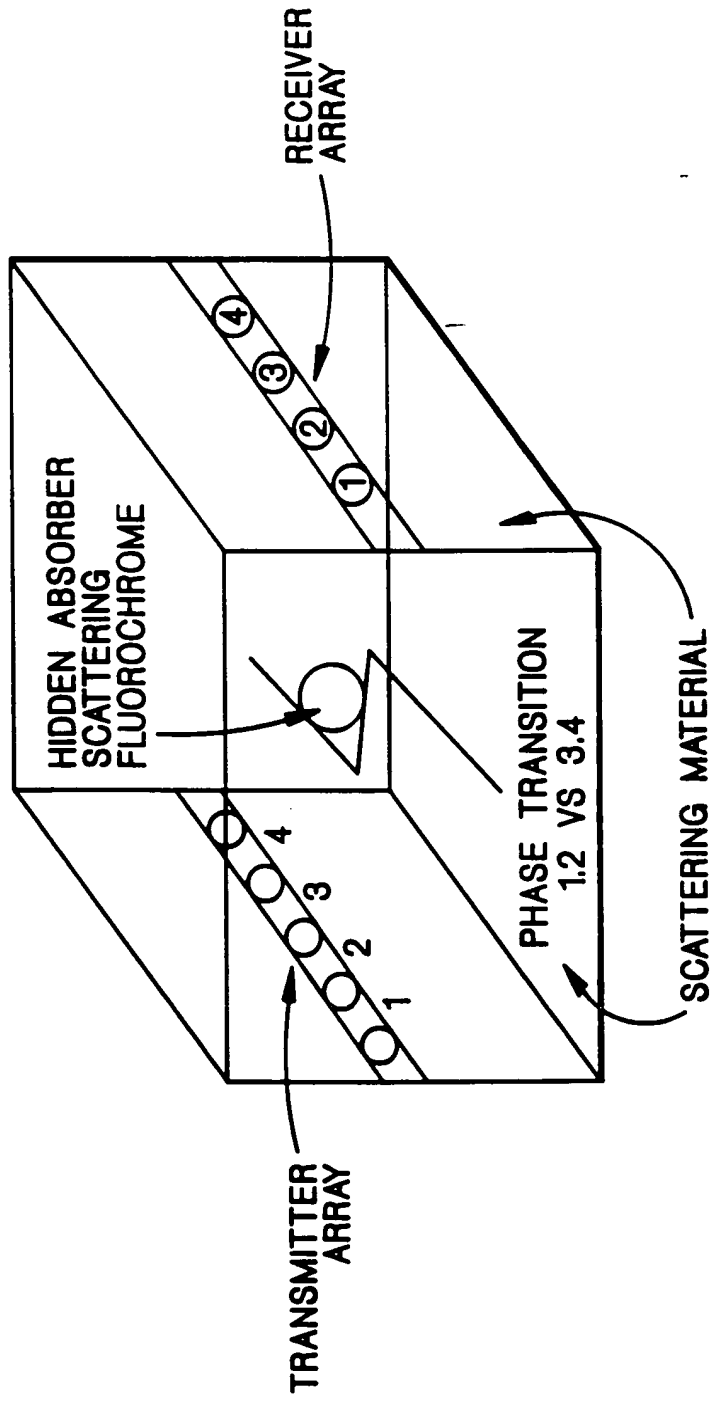


FIG. 2D

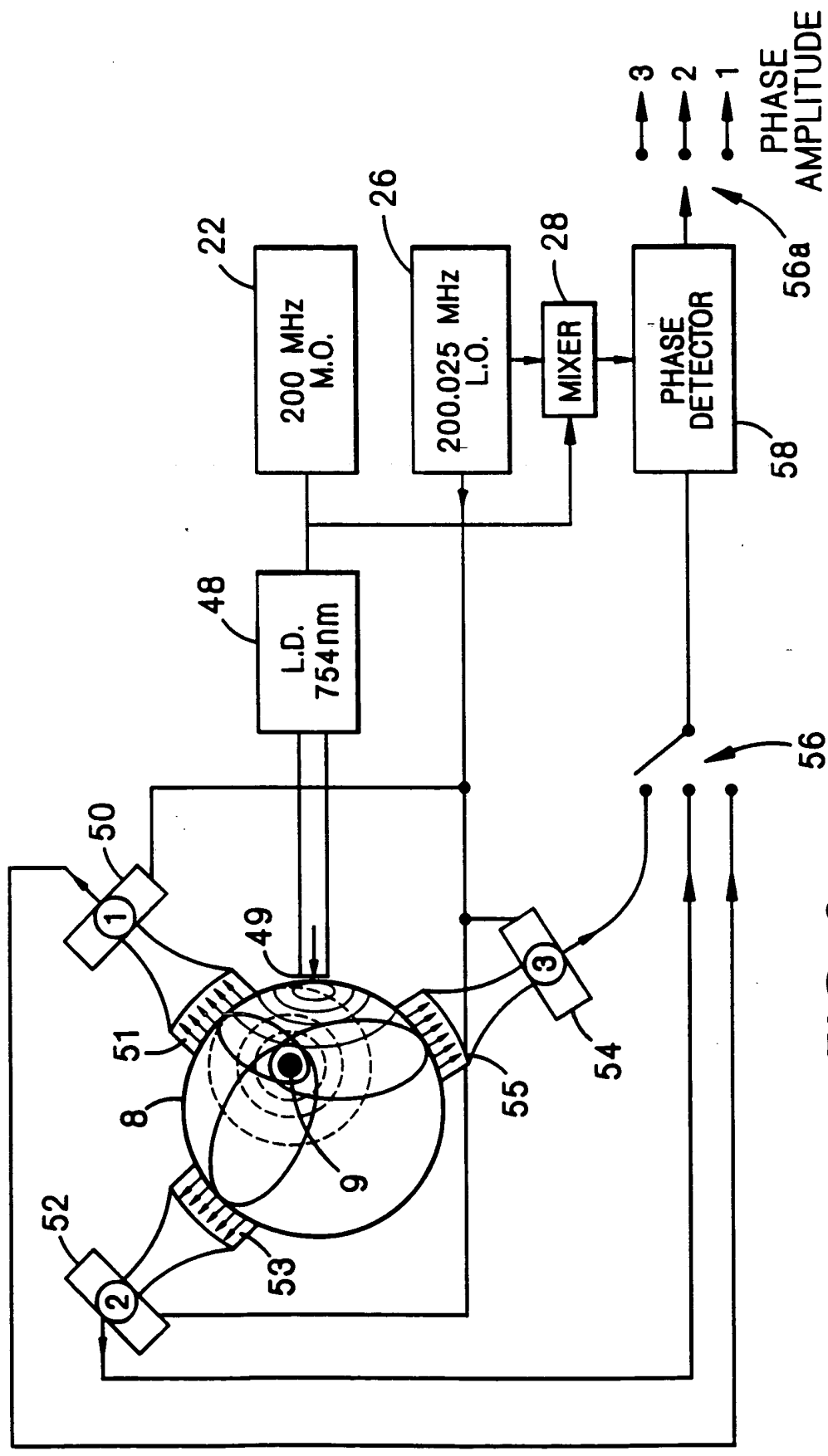


FIG. 3

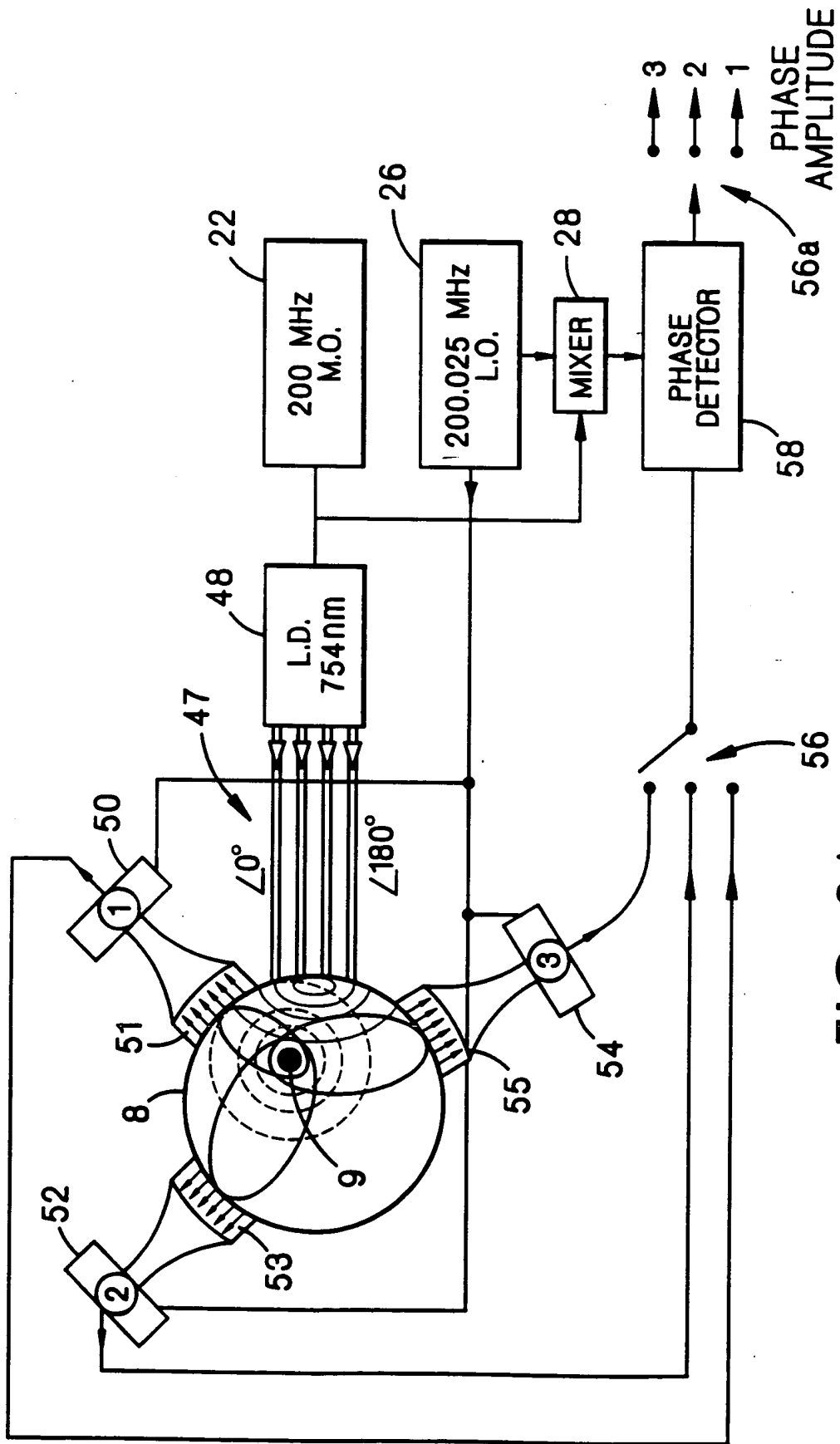


FIG. 3A

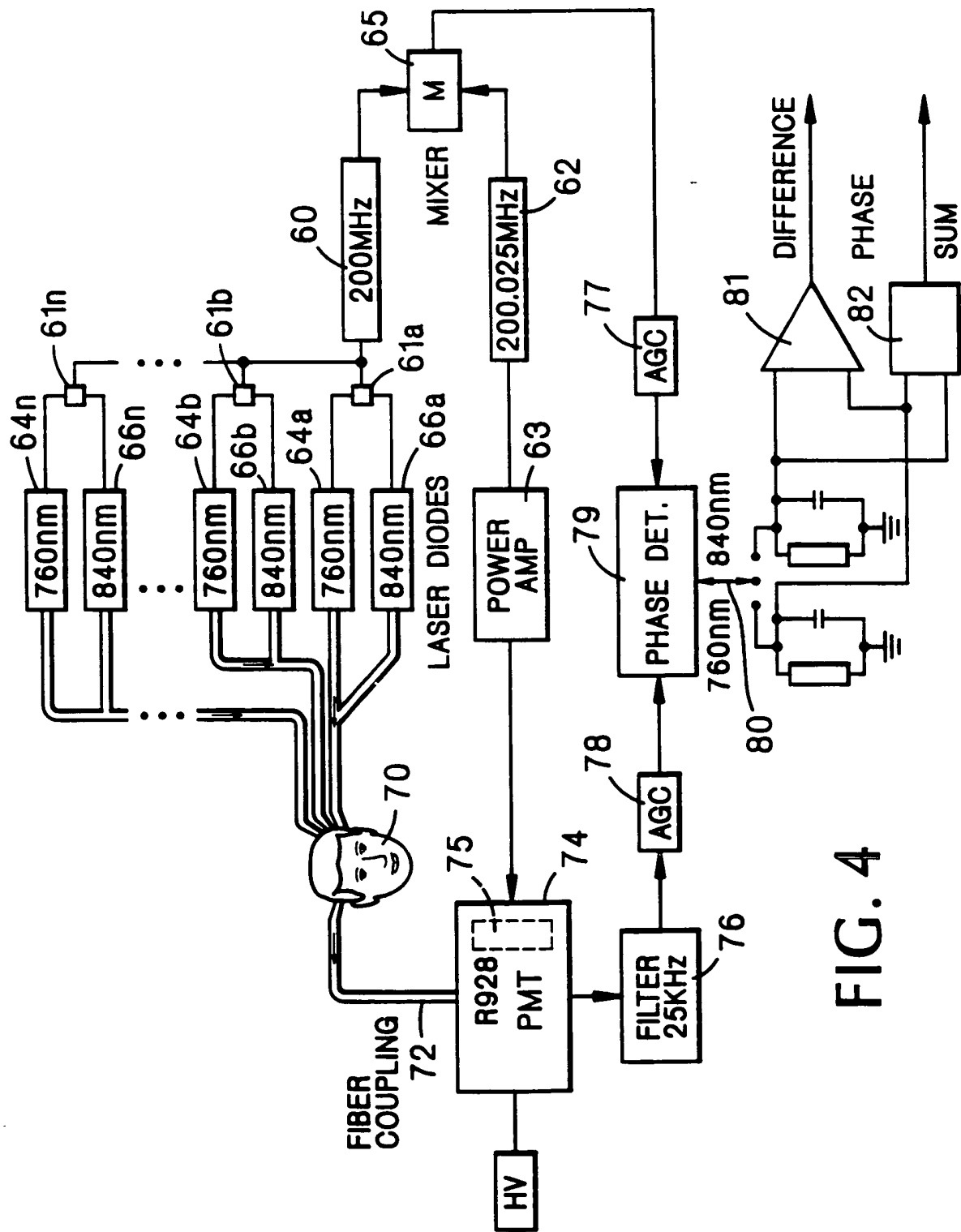


FIG. 4

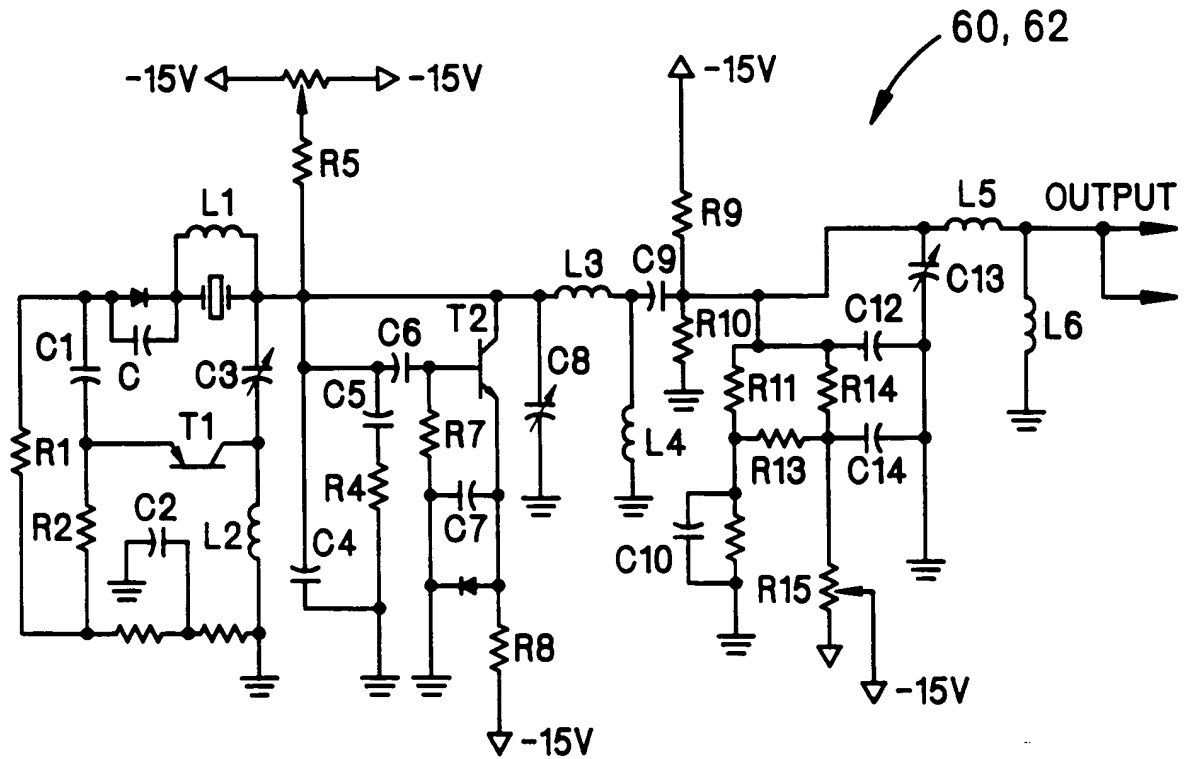


FIG. 4A

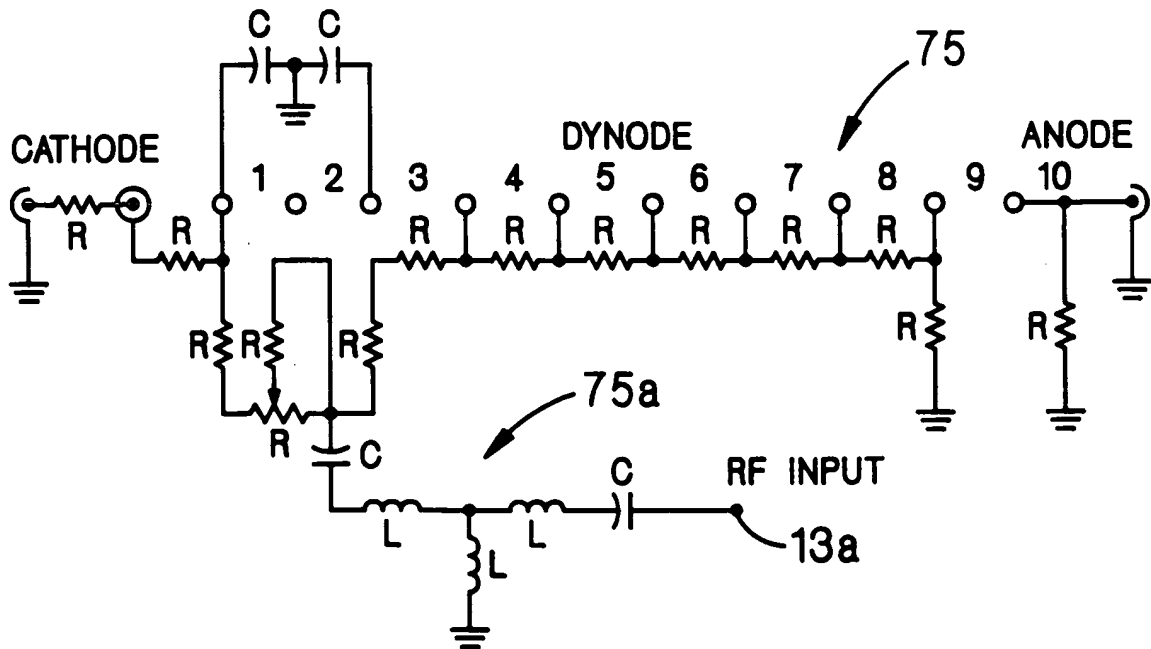
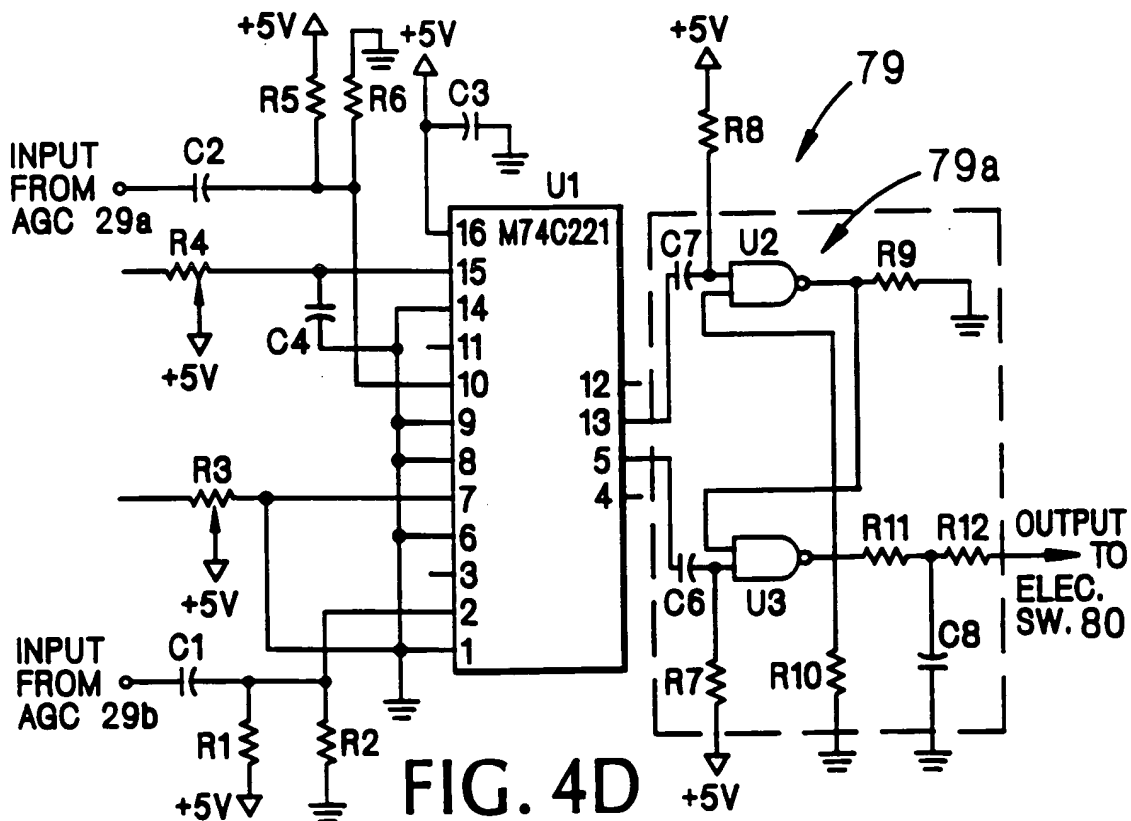
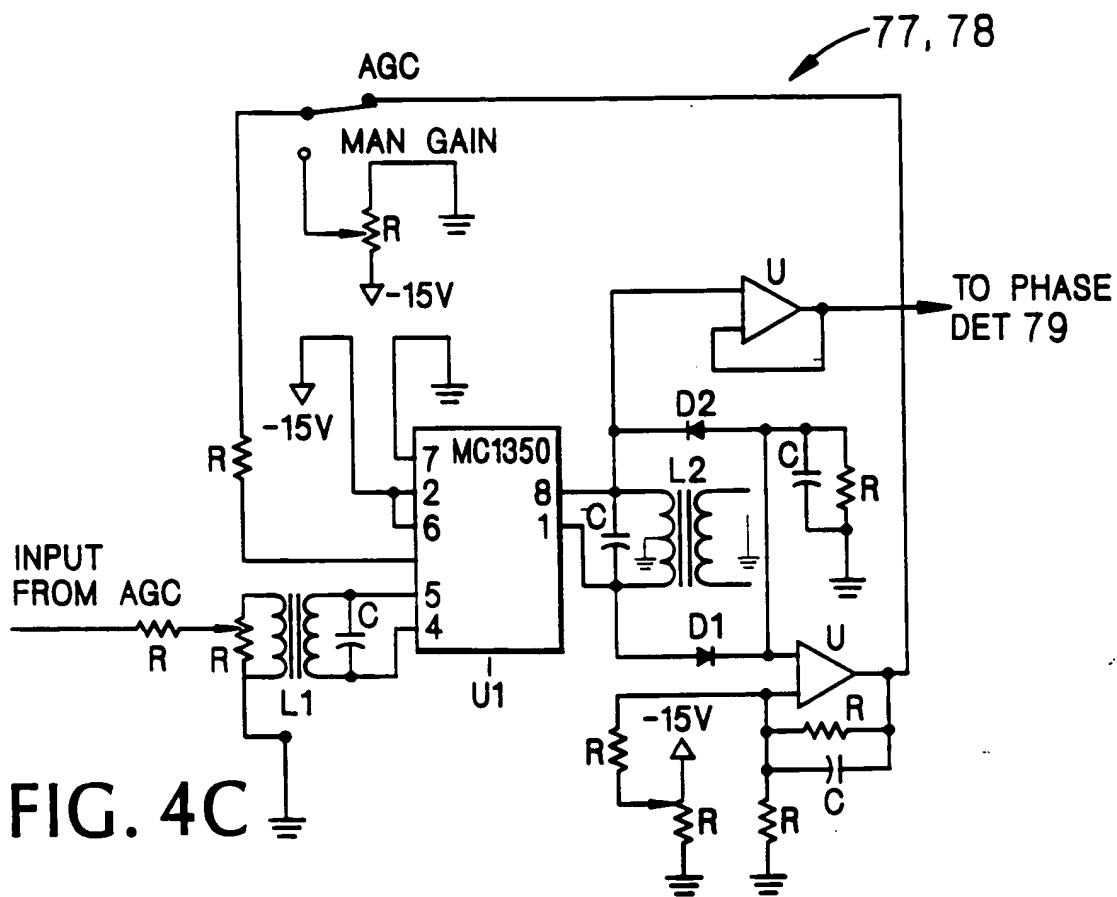


FIG. 4B



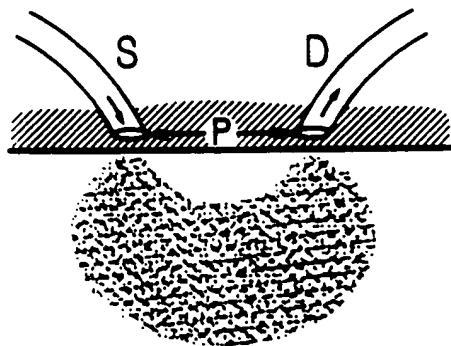


FIG. 5A

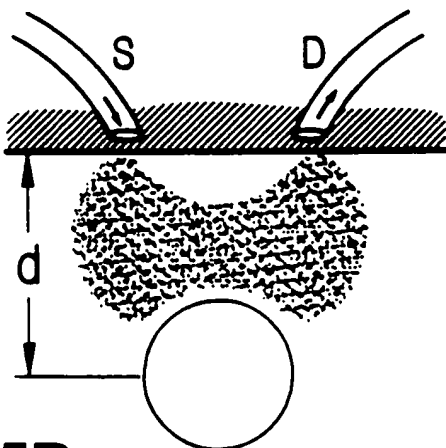
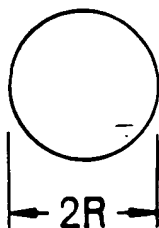


FIG. 5B

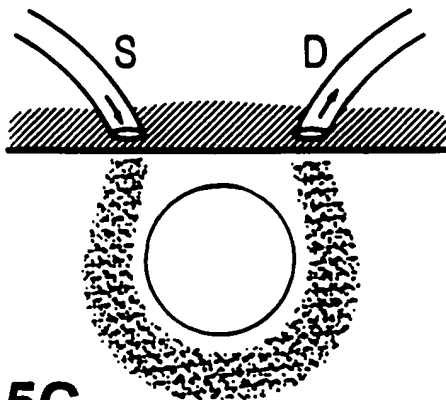


FIG. 5C

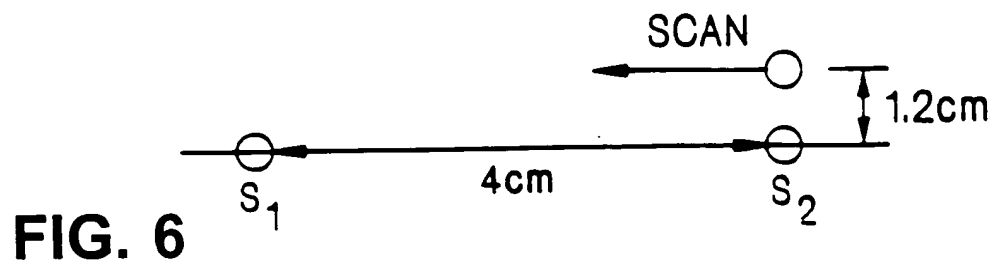


FIG. 6A

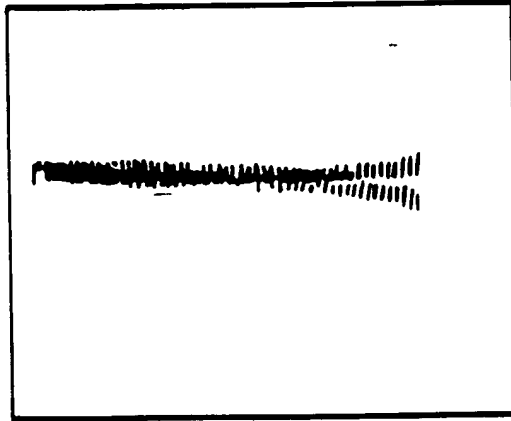


FIG. 6B

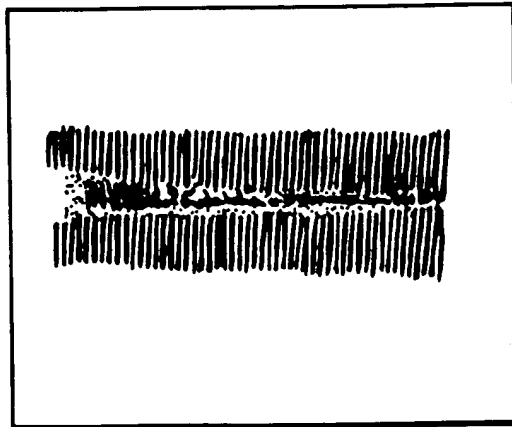
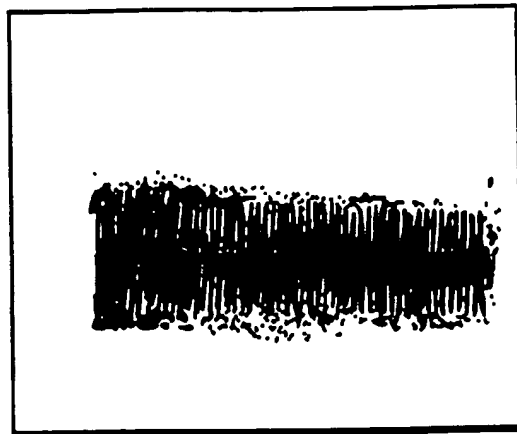


FIG. 6C



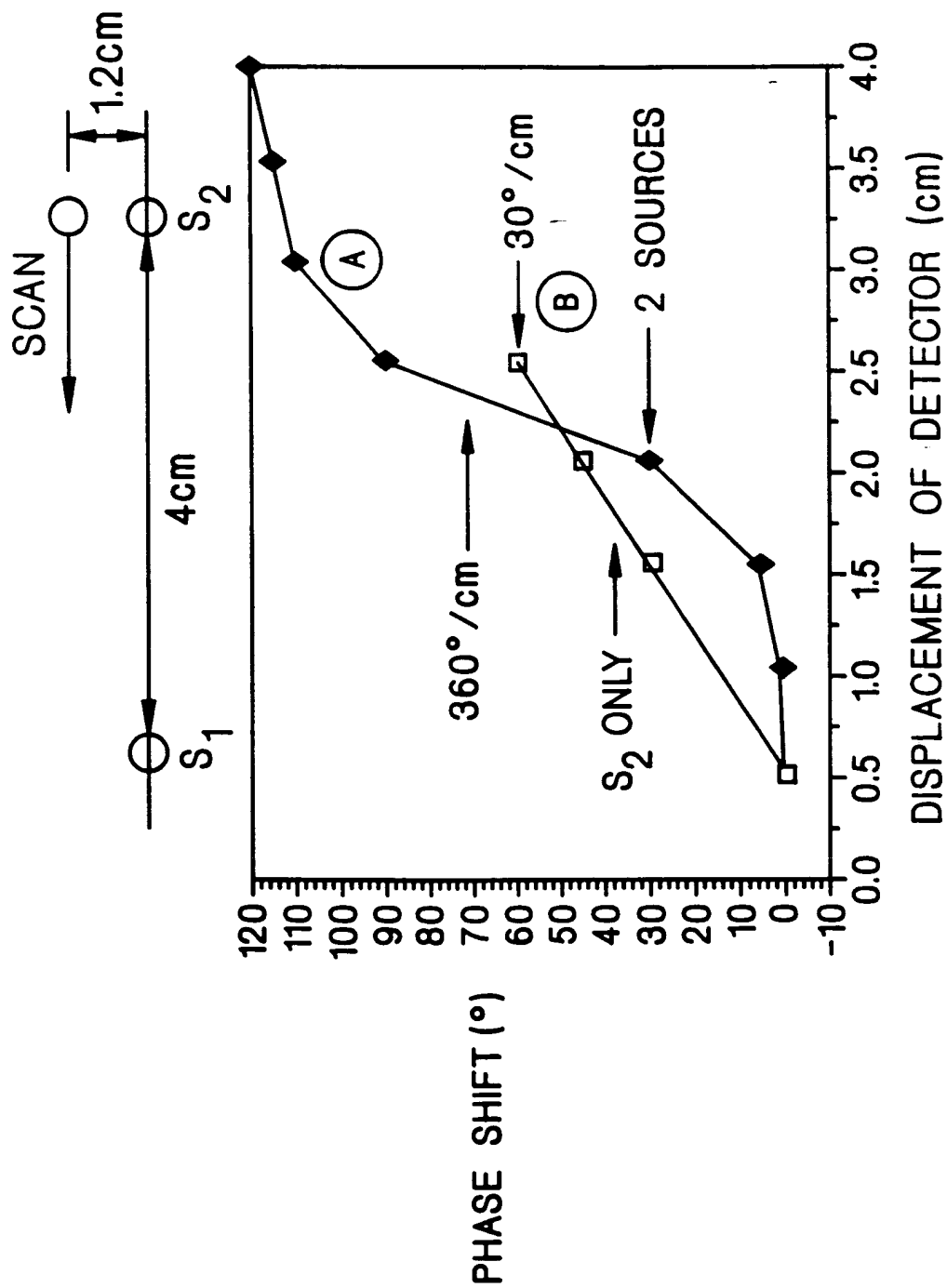


FIG. 7

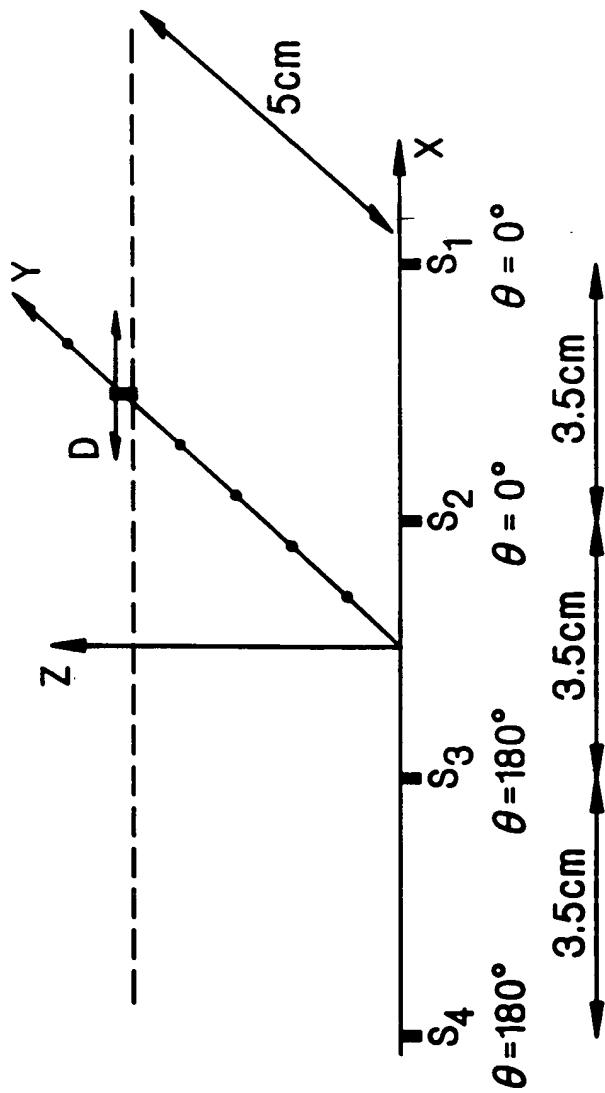


FIG. 8A

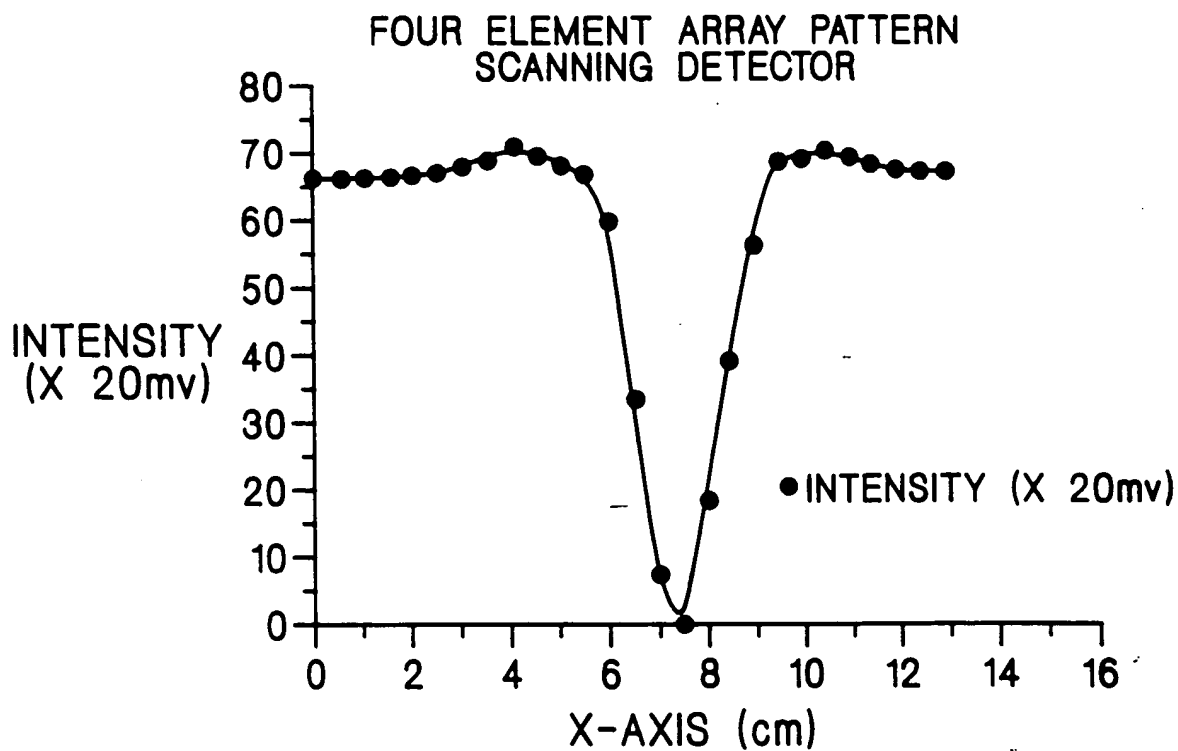


FIG. 8B

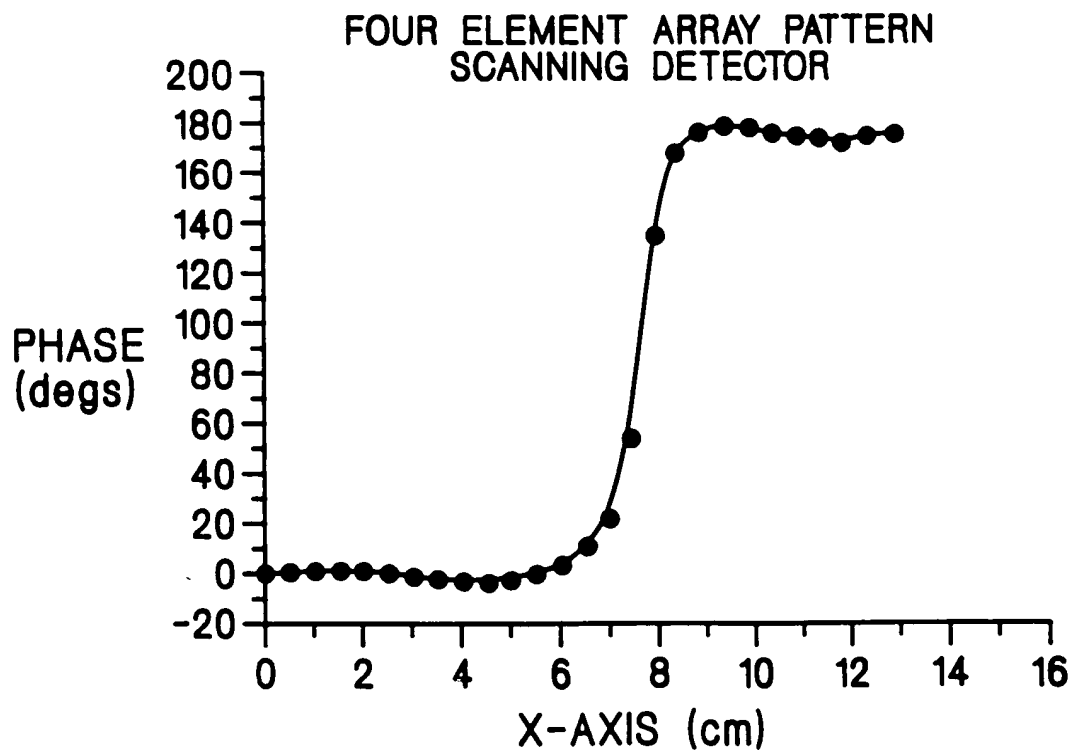


FIG. 8C

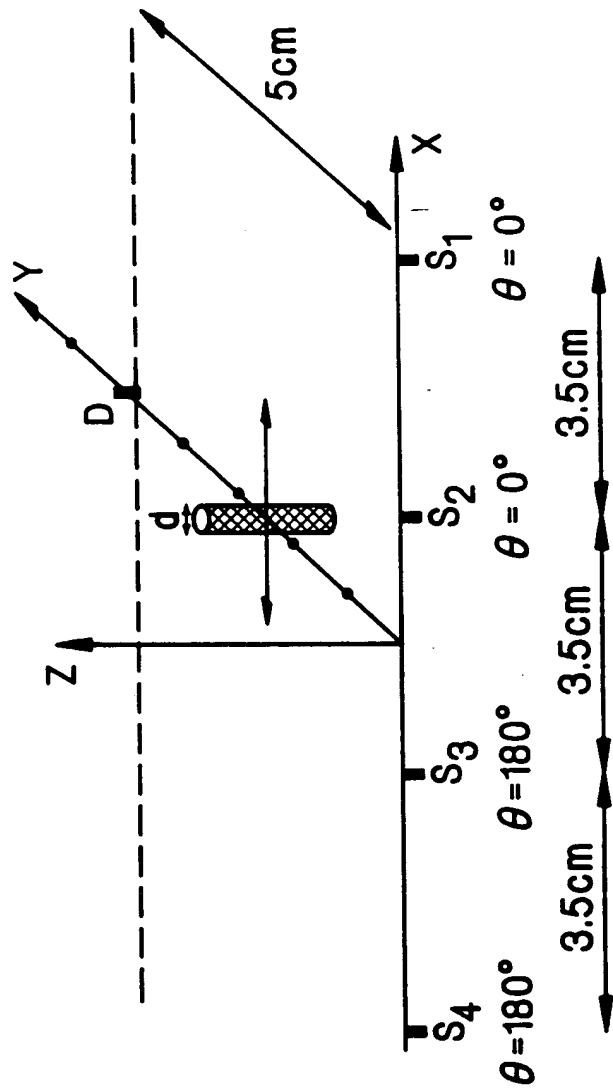


FIG. 9A

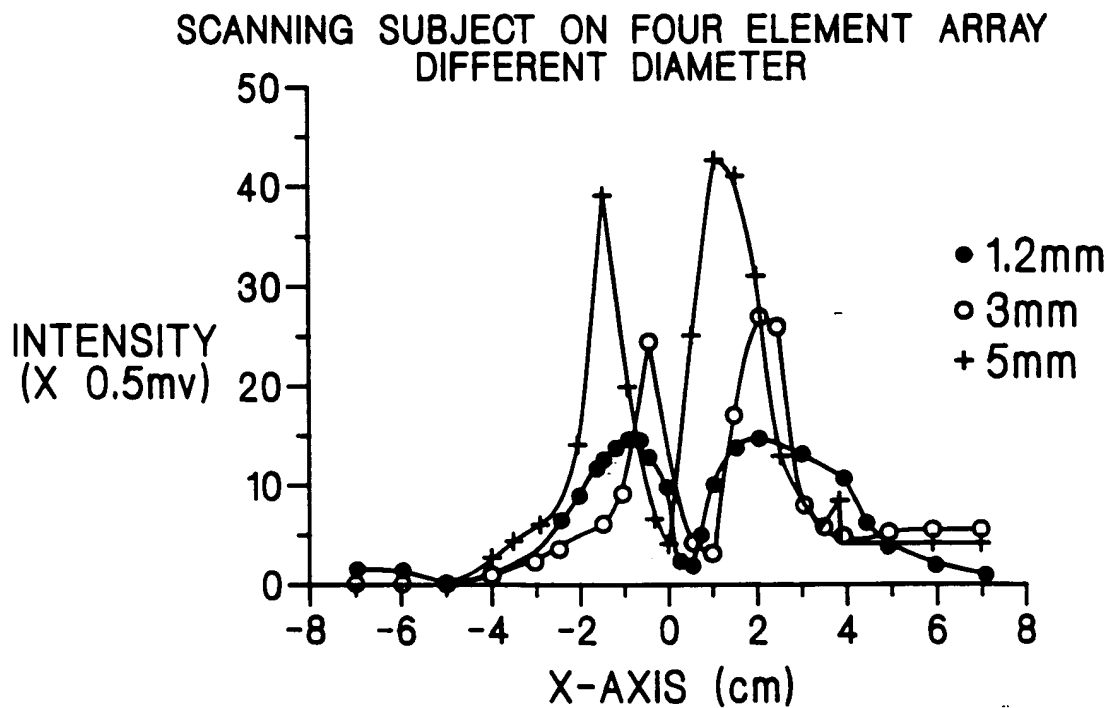


FIG. 9B

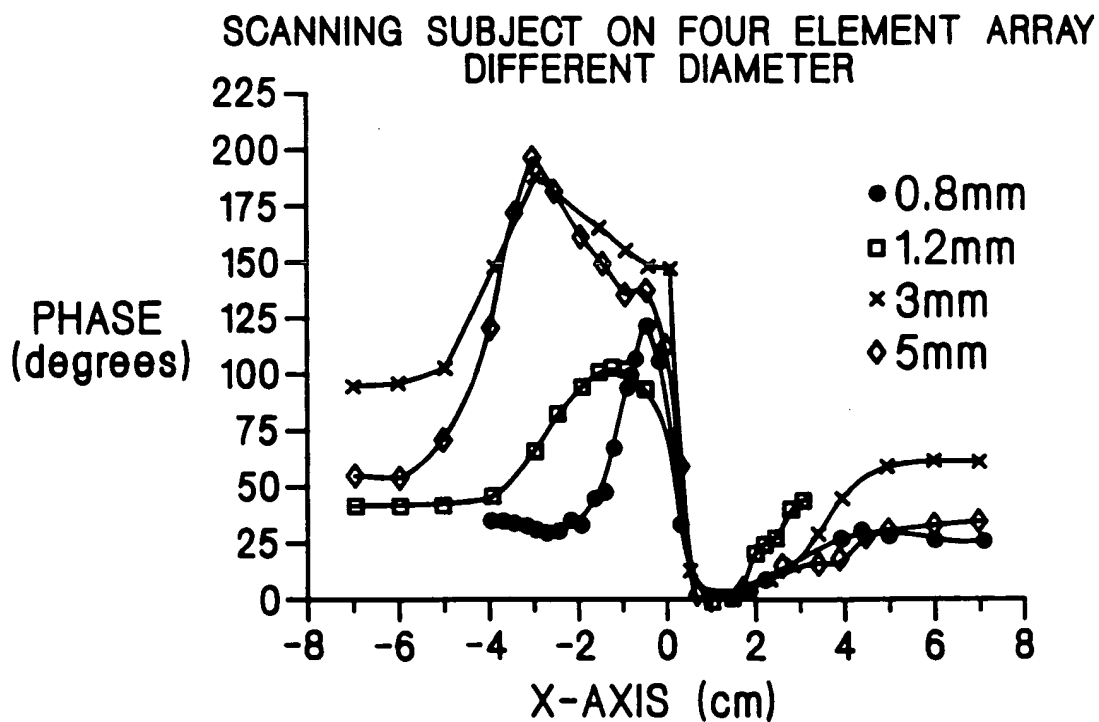


FIG. 9C

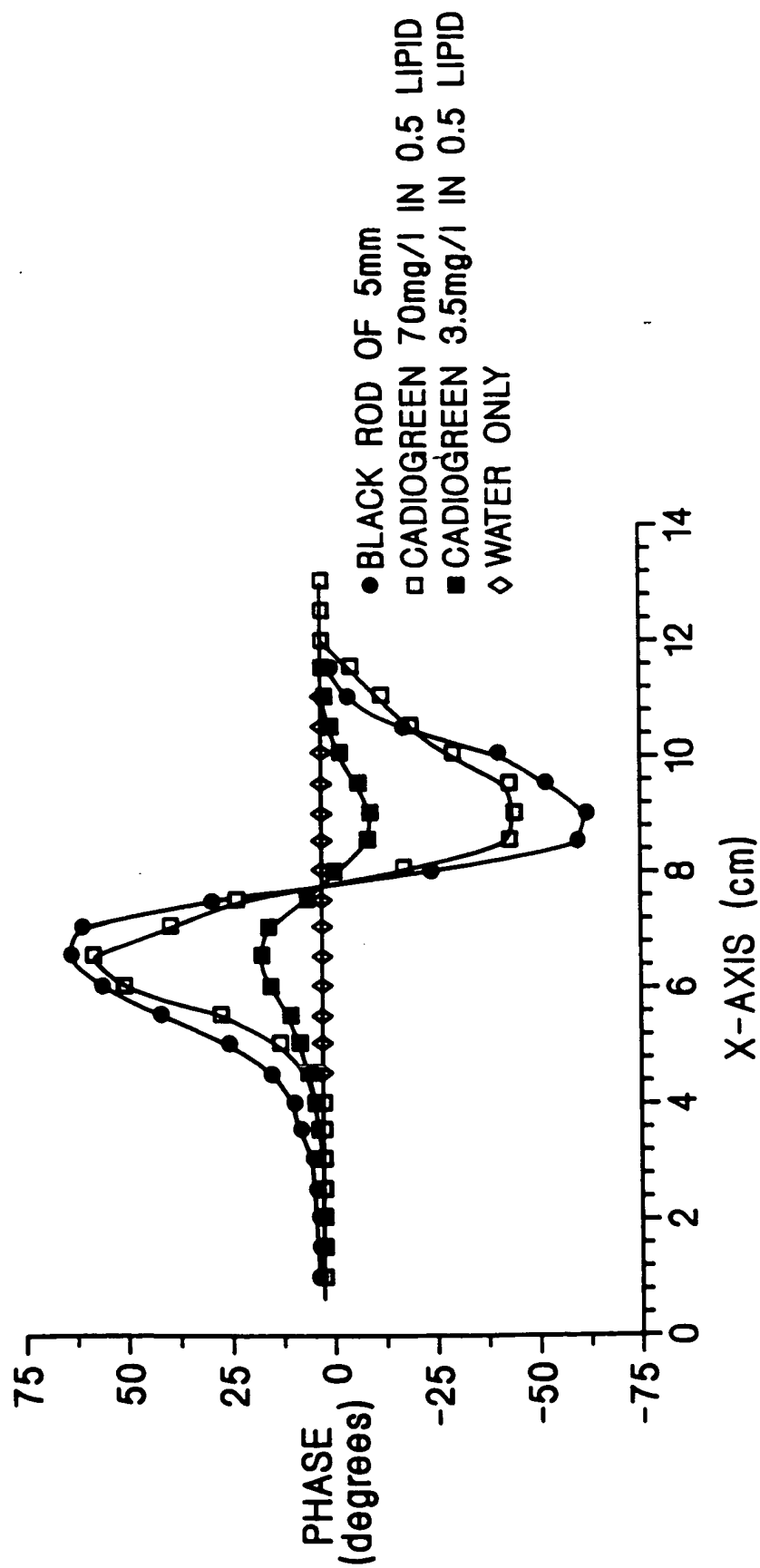


FIG. 9D

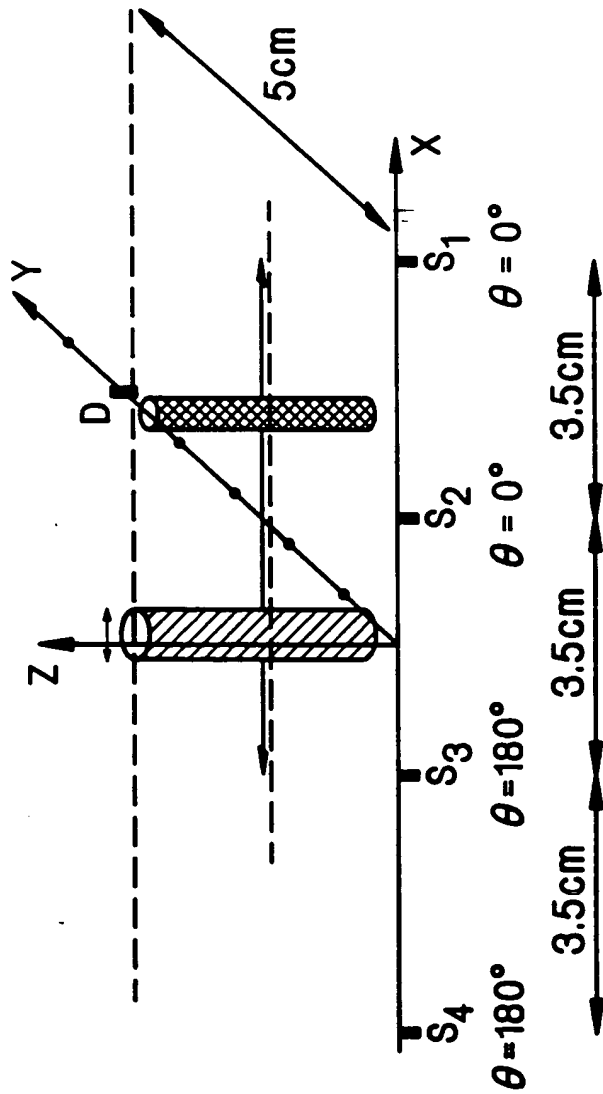
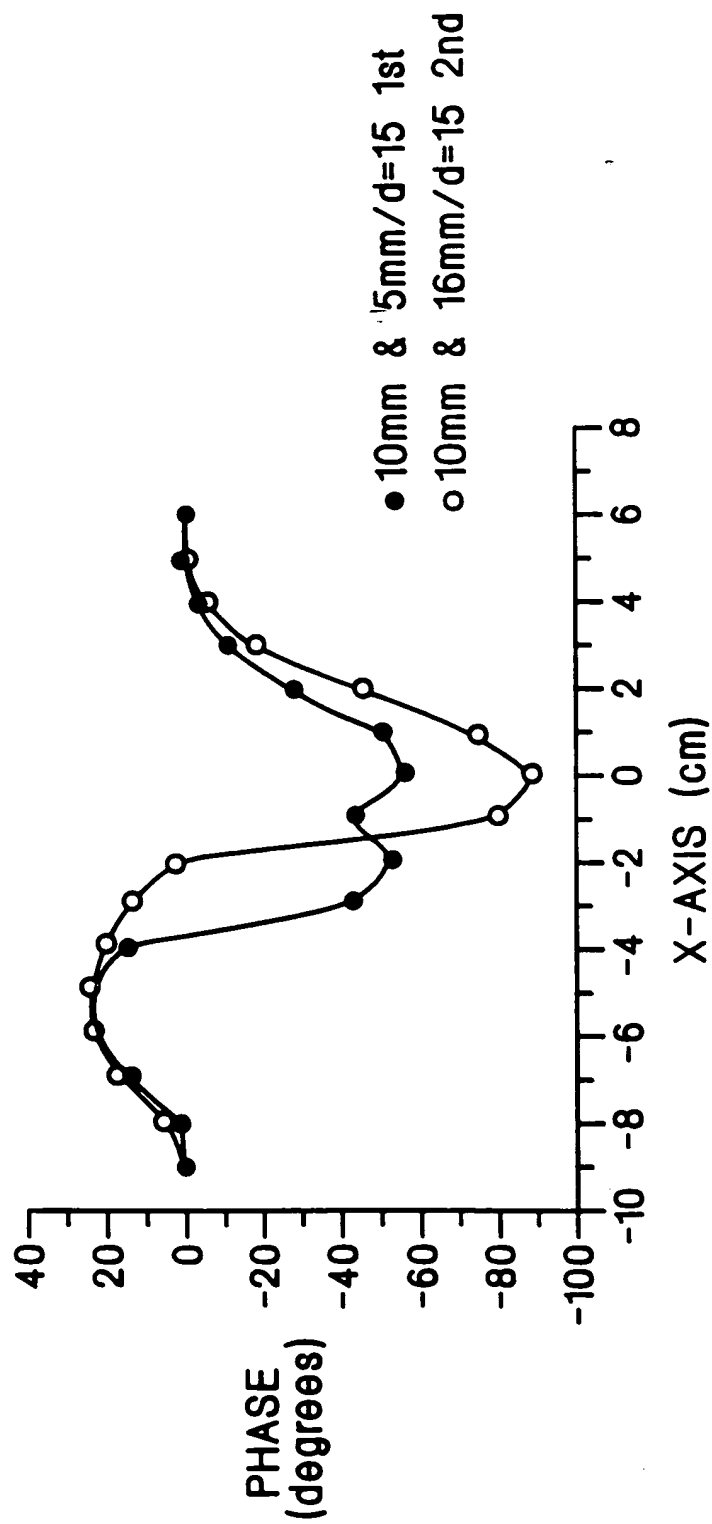


FIG. 10A

TWO OBJECT SCANNING ON FOUR ELEMENT ARRAY



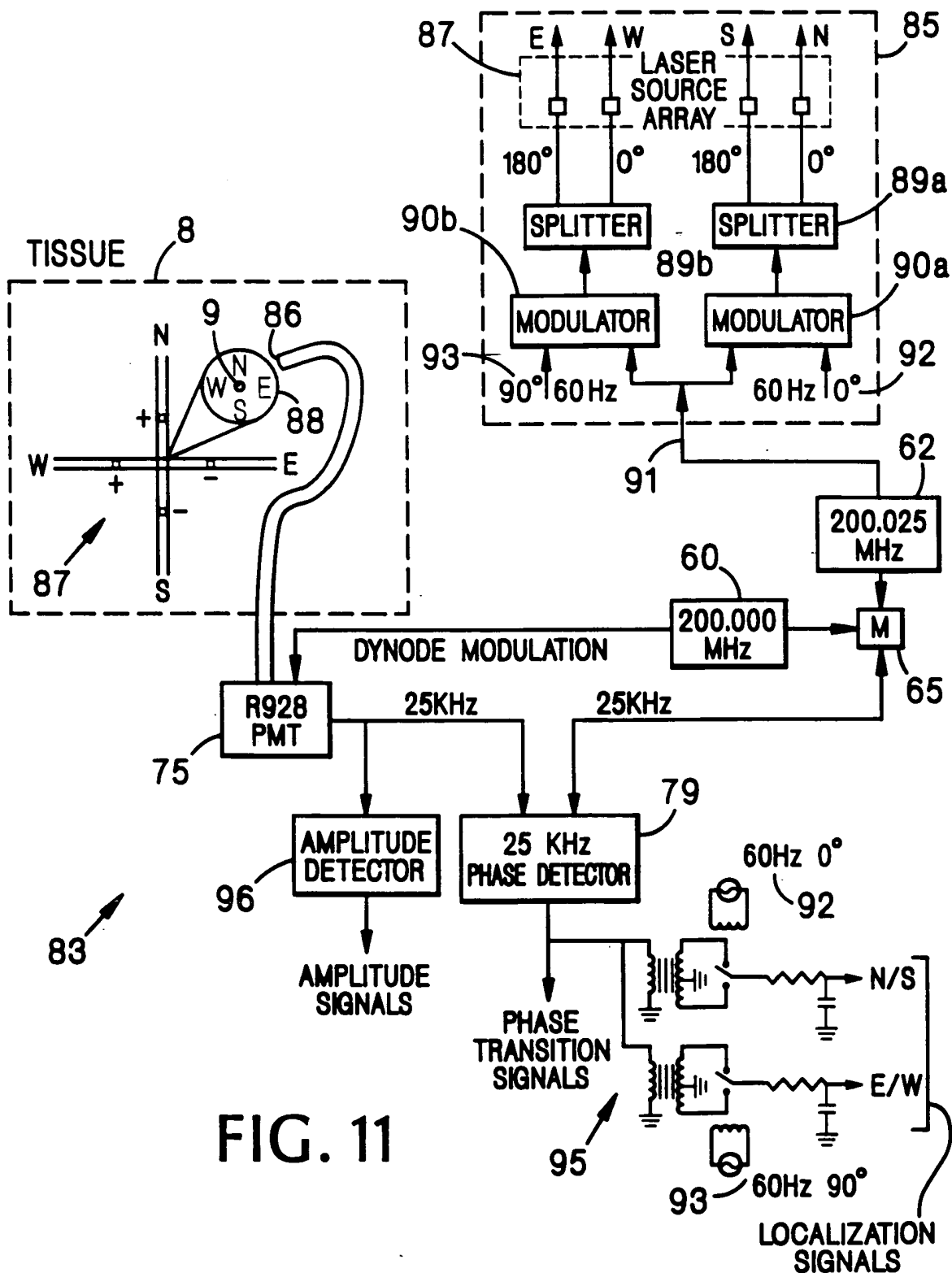


FIG. 11

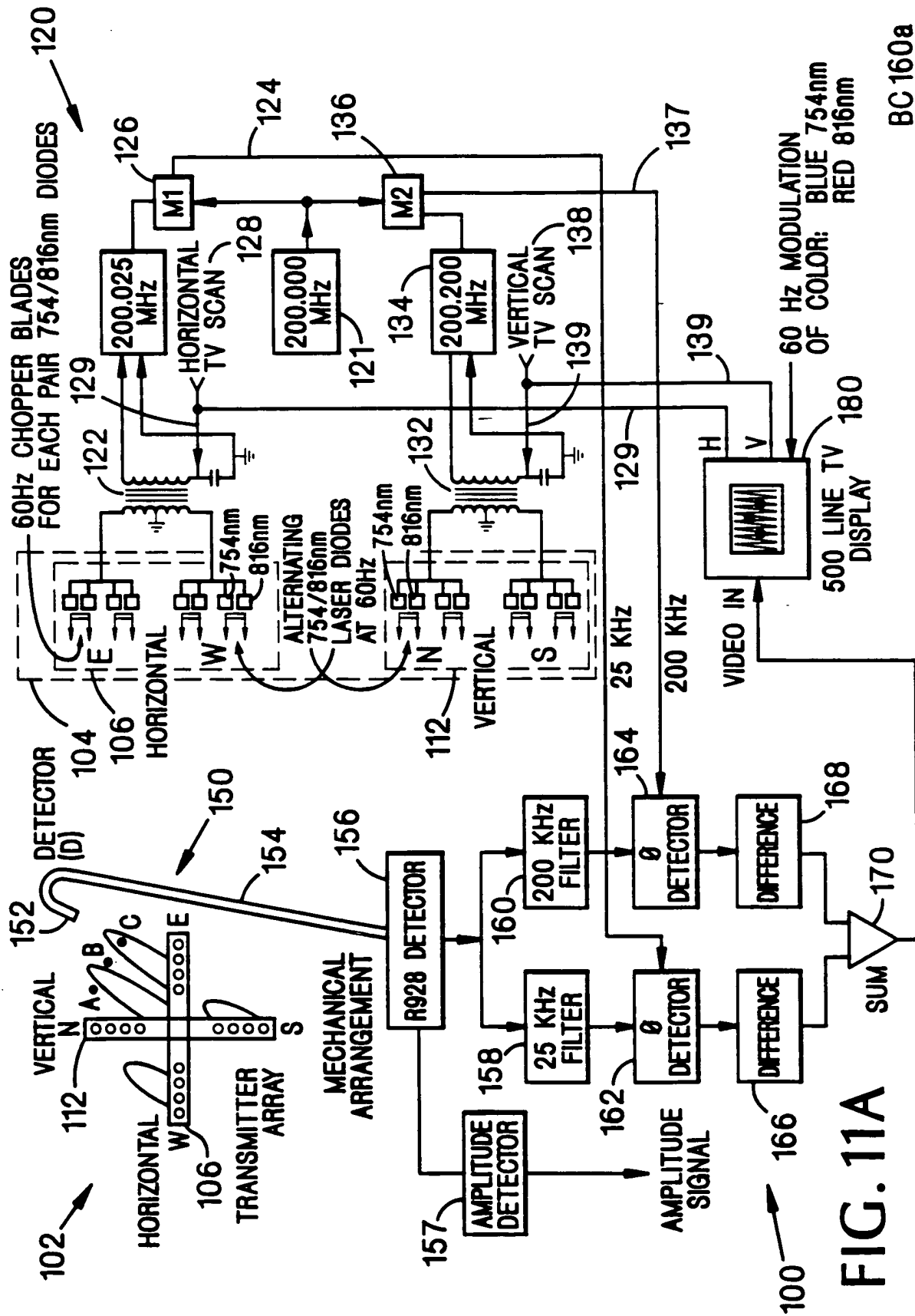


FIG. 11A

BC 160a

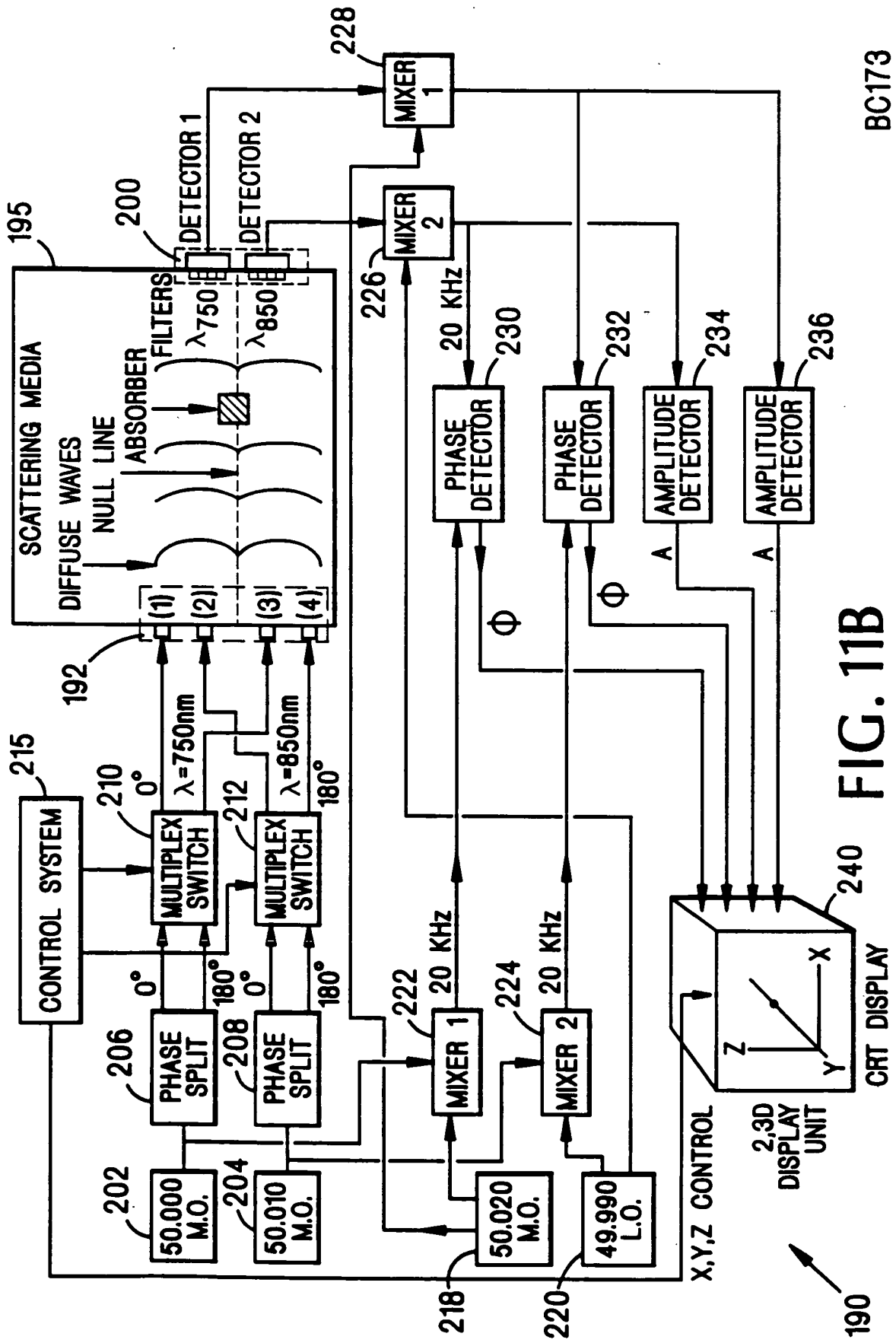


FIG. 11B

BC173

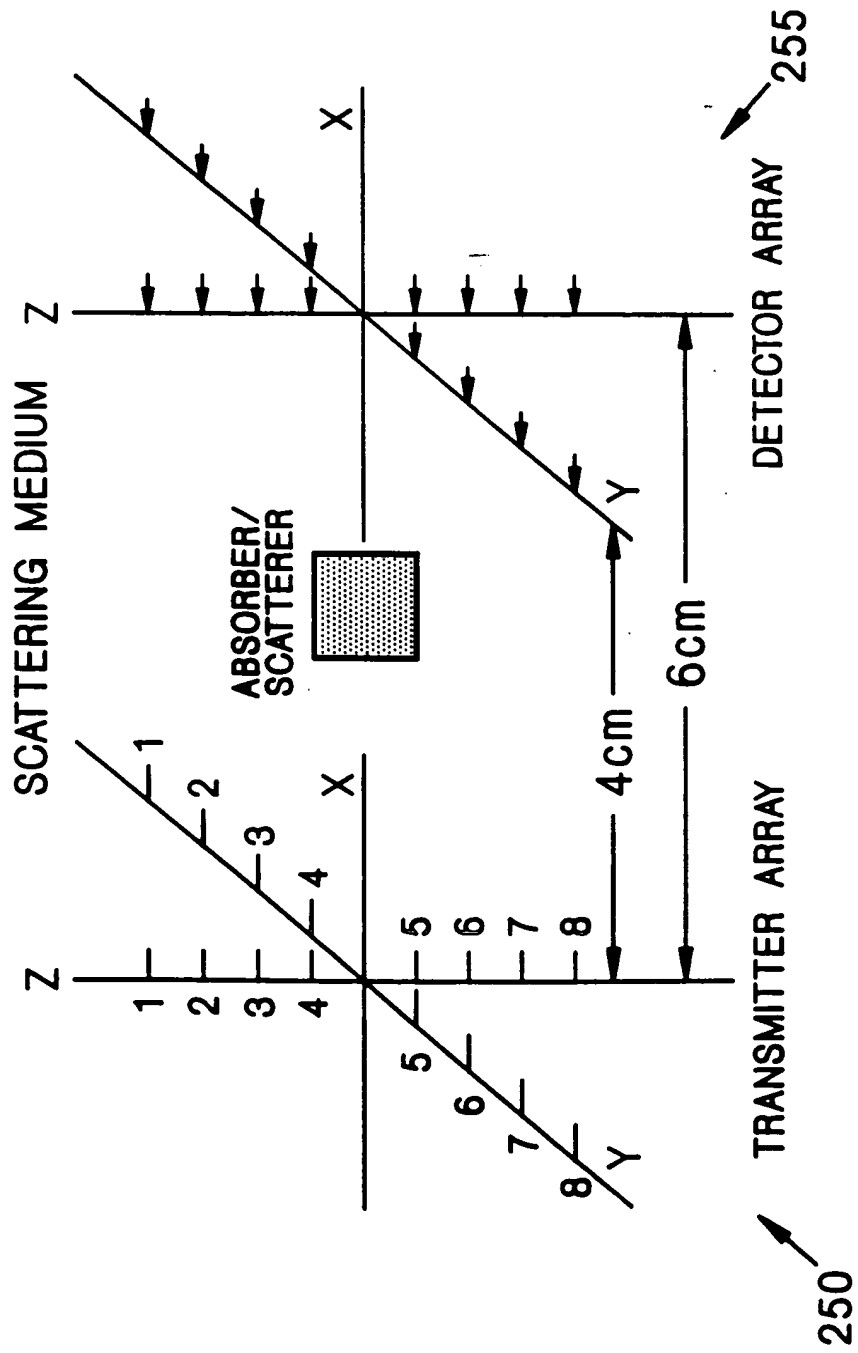


FIG. 12A

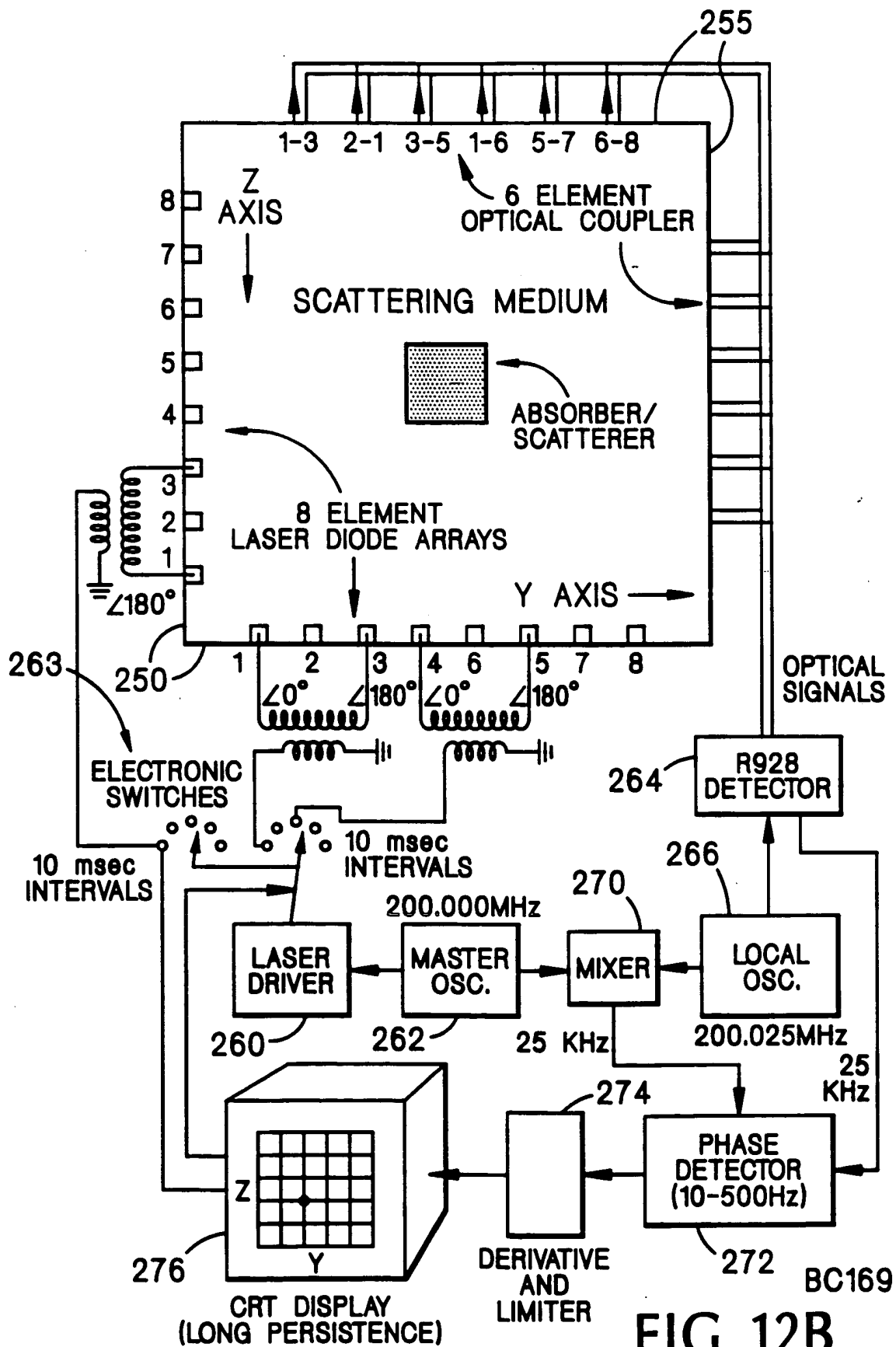


FIG. 12B